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Charles W. Norman

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EXAMINER

NGUYEN, STEVEN H D

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/647,936	Applicant(s) NORMAN, CHARLES W.	
	Examiner STEVEN H.D NGUYEN	Art Unit 2619	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 January 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6, 8-16 and 18-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 8-16 and 18-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-6, 8-16 and 18-20 rejected under 35 U.S.C. 103(a) as being unpatentable over Somashekhar (USP 7006536)/ Sugawara (USP 6169754)

As claims 1 and 11, Somashekhar discloses a method and communication system comprising a first interface system (Fig 4, Ref 14) configured to receive a first Synchronous Optical Network (SONET) signal including first section overhead and first line overhead in a first transport overhead and including path overhead and user data in a first payload, and in response, to transfer the first section overhead, the first line overhead, the path overhead, and the user data (Fig 5); and a second interface system (Fig 4, Ref 16) configured to receive the first section overhead, the first line overhead, the path overhead, and the user data, and in response, to regenerate the first SONET signal including the first section overhead and the first line overhead in the first transport overhead and including the path overhead and the user data in the first payload, and to transfer the regenerated first SONET signal (Figs 7 and 10). Somashekhar fails to disclose a first interface for receiving over a single optical wavelength a sonet signal to transfer in parallel over multiple optical wavelengths a sonet signal. However, the examiner takes an official notice that a method and system for receiving over a single optical wavelength a sonet signal to transfer in parallel over multiple optical wavelengths a sonet signal is well known

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and expected in the art at the time of invention was made. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to integrate an interface for receiving a single optical wavelength comprising a Sonet signal and transfer in parallel over multiple optical wavelengths the Sonet as stated in the teaching of Somashekhar. The motivation would have been to improve transmission rate.

As claims 2 and 12, Somashekhar discloses an optical network configured to receive the first section overhead, the first line overhead, the path overhead, and the user data from the first interface system and to transfer the first section overhead, the first line overhead, the path overhead, and the user data to the second interface system (Fig 5, col. 7, lines 24-65 and col. 8, lines 17-58).

As claims 5 and 15, Somashekhar discloses the first interface system is configured to transfer the path overhead and the user data by transferring a second SONET signal including second section overhead and second line overhead in a second transport overhead and including the path overhead and the user data in a second payload (Figs 5, 7-10).

As claims 9 and 19, Somashekhar discloses the second interface system is configured to receive the path overhead and the user data by receiving a second SONET signal including second section overhead and second line overhead in a second transport overhead and including the path overhead and the user data in a second payload (Figs 5, 7-10).

As claims 1-2, 5, 9, 11-12, 15 and 19, Sugawara discloses a method and communication system comprising a first interface system (Fig 9, Ref E) configured to receive a single optical wavelength a first Synchronous Optical Network (SONET) signal including first section overhead and first line overhead in a first transport overhead and including path overhead and

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user data in a first payload, and in response, to transfer in parallel over multiple optical wavelength the first section overhead, the first line overhead, the path overhead, and the user data in a second SONET signal including second section overhead and second line overhead in a second transport overhead and including the path overhead and the user data in a second payload (Col. 8, line 52 to col. 9, line 27); and a second interface system (Fig 9, Ref F) configured to receive the first section overhead, the first line overhead, the path overhead, and the user data, and in response, to regenerate the first SONET signal including the first section overhead and the first line overhead in the first transport overhead and including the path overhead and the user data in the first payload, and to transfer the regenerated first SONET signal (Col. 8, lines 52 to col. 9, lines 27). Sugawara fails to disclose a first interface for receiving over a single optical wavelength a sonet signal to transfer in parallel over multiple optical wavelengths a sonet signal. However, the examiner takes an official notice that a method and system for receiving over a single optical wavelength a sonet signal to transfer in parallel over multiple optical wavelengths a sonet signal is well known and expected in the art at the time of invention was made. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to integrate an interface for receiving a single optical wavelength comprising a Sonet signal and transfer in parallel over multiple optical wavelengths the Sonet as stated in the argument into the teaching of Sugawara. The motivation would have been to improve transmission rate.

As claims 3-4 and 13-14, Somashekhar/Sugawara fails to disclose the first and second provider wherein the first provider for transmitting/receiving the SONET and the second provider being used to convey the SONET signal between the first provider interfaces; therefore form a closed SONET ring for the first provider; a first communication service provider transfers

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the first SONET signal to the first interface system and receives the regenerated first SONET signal from the second interface system, and wherein the communication system is part of a second communication service provider. However, the examiner takes an official notice that a method and system for connecting the first provider ring to a second provider ring are well known in the art at the time of invention was made. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to connect the first provider ring to a second provider ring into Somashekhar/Sugawara in order to link the networks.

As claims 8 and 18, Somashekhar/Sugawara fails to disclose the second interface system is configured to receive the first section overhead, the first line overhead, the path overhead, and the user data in parallel over the multiple optical wavelengths and to transfer the regenerated first SONET signal over the single optical wavelength. However, the examiner takes an official notice that a method and system for conveying a SONET signal in a single wavelength or in plurality of parallel wavelengths are well known and expected in the art at the time invention was made. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to transmit/receive a sonnet signal in single wavelength or plurality parallel wavelengths into Somashekhar/Sugawara in order to transparent the sonet signal via another network.

As claims 6, 10, 16 and 20, Somashekhar/Sugawara fails transferring a second SONET signal including the first section overhead and the first line overhead in a second payload between the first and second interface. However, the examiner takes an official notice that a method and system for encapsulating a sonnet signal into another sonnet signal is well known and expected in the art at the time invention was made. Therefore, it would have been obvious to

one of ordinary skill in the art at the time of the invention was made to apply a method and system for encapsulating/decapsulating into Somashekhar/Sugawara in order to transparent the sonet signal via another network.

3. Claims 1-6, 8-16 and 18-20 rejected under 35 U.S.C. 103(a) as being unpatentable over Cook (USP 20020103926).

As claims 1-2, 5-6, 9-12, 15-16 and 19-20, Cook discloses a method and communication system comprising a first interface system (Fig 1) configured to receive a single optical wavelength a first Synchronous Optical Network (SONET) signal (Fig 1, Ref 14) including first section overhead and first line overhead in a first transport overhead and including path overhead and user data in a first payload, and in response, to transfer the first section overhead, the first line overhead, the path overhead, and the user data in a second SONET signal (Fig 1, Ref 18) including second section overhead and second line overhead in a second transport overhead and including the first section overhead, the first line overhead, the path overhead and the user data in a second payload via an optical network (Fig 1, Ref 12); and a second interface system (Fig 1) configured to receive the first section overhead, the first line overhead, the path overhead, and the user data from optical network by receiving a second SONET signal (Fig 1, Ref 18) including second section overhead and second line overhead in a second transport overhead and including the first section overhead, the first line overhead, the path overhead and the user data in a second payload (Fig 1, Ref 16), and in response, to regenerate the first SONET signal including the first section overhead and the first line overhead in the first transport overhead and including the path overhead and the user data in the first payload, and to transfer the regenerated first SONET signal (Fig 1, Ref 20); See page 2, Sec 16-17. Cook fails to disclose a first interface for

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receiving over a single optical wavelength a sonet signal to transfer in parallel over multiple optical wavelengths a sonet signal. However, the examiner takes an official notice that a method and system for receiving over a single optical wavelength a sonet signal to transfer in parallel over multiple optical wavelengths a sonet signal is well known and expected in the art at the time of invention was made. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to integrate an interface for receiving a single optical wavelength comprising a Sonet signal and transfer in parallel over multiple optical wavelengths the Sonet as stated in the argument into the teaching of Cook. The motivation would have been to improve transmission rate.

As claims 3-4 and 13-14, Cook fails to disclose the first and second provider wherein the first provider for transmitting/receiving the SONET and the second provider being used to convey the SONET signal between the first provider interfaces; therefore form a closed SONET ring for the first provider; a first communication service provider transfers the first SONET signal to the first interface system and receives the regenerated first SONET signal from the second interface system, and wherein the communication system is part of a second communication service provider. However, the examiner takes an official notice that a method and system for connecting the first provider ring to a second provider ring are well known in the art at the time of invention was made. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to connect the first provider ring to a second provider ring in order to link the networks.

As claims 8 and 18, Cook fails to disclose the second interface system is configured to receive the first section overhead, the first line overhead, the path overhead, and the user data in

parallel over the multiple optical wavelengths and to transfer the regenerated first SONET signal over the single optical wavelength. However, the examiner takes an official notice that a method and system for conveying a SONET signal in a single wavelength or in plurality of parallel wavelengths are well known and expected in the art at the time invention was made. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to transmit/receive a sonnet signal in single wavelength or plurality parallel wavelengths in order to transparent the sonet signal via another network.

Response to Arguments

4. Applicant's arguments filed 1/25/2008 have been fully considered but they are not persuasive.

In the first office action, the examiner states that an interface for receiving a single optical wavelength includes a sonet signal and transmitting the sonet signal in parallel over multiple optical wavelengths. In reply, Kikuchi (USP 6532320) discloses an interface for receiving a single optical wavelength includes a sonet signal and transmitting the sonet signal in parallel over multiple optical wavelengths (Fig 2-4, 8, 13, 14, 16-24, Lamda a for input OC-192 and Lamda 1-4 are output, OC-48). Takeguchi (US 7239649) discloses an interface for receiving a single optical wavelength includes a sonet signal and transmitting the sonet signal in parallel over multiple optical wavelengths (Figs 1-2, input OC-192 and output, OC-48). Shimomura (US 6404525) discloses an interface for receiving a single optical wavelength includes a sonet signal and transmitting the sonet signal in parallel over multiple optical wavelengths (Fig 1). Kim (US 6559989) discloses an interface for receiving a single optical wavelength includes a sonet signal

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and transmitting the sonet signal in parallel over multiple optical wavelengths (Figs 2-3).

Urashita (US 20010030784) discloses an interface for receiving a single optical wavelength includes a sonet signal and transmitting the sonet signal in parallel over multiple optical wavelengths (Figs 2-3).

5. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

6. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, The prior arts such as Somashekhar/Sugawara/Cook discloses the claimed invention excepting for a well known limitation as stated in the office action. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention was made to implement a method for receiving a single wavelength includes a signal and conveying the signal in parallel over multiple wavelength. The motivation would have been to increase a transmission rate.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to STEVEN H.D NGUYEN whose telephone number is (571)272-3159. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jayanti Patel can be reached on (571) 272-2988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Steven H.D Nguyen/
Primary Examiner, Art Unit 2619